

and at the cross-veins. The first submarginal is longer and a little narrower than the second posterior, its stem about one-half the length of the cell. The basal cross-vein not quite its length from the anterior. The scales are dark brown, somewhat truncate on the costa, the first long vein and the stem of the fifth, otherwise they are long narrow lanceolate. Halteres have light stem and dark knobs.

Length (abdomen 4 mm., body 7 mm., proboscis 3 mm., wing 6 mm.).

Taken, Selenga, Siberia, July 10, 1919, by First Lieut. J. P. Kopecky, M.C., U. S. Army (A. E. F.-S.) and described from two females sent with specimens of *Anopheles lewisi*, described above. It is quite in the possibilities that this may prove to be only a variation, of *lewisi*, but as the Anophelines of this region are not well known it has seemed worth while to describe it.

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NOTES AND DESCRIPTIONS OF SPECIES OF  
TELENOMUS HAVING TEN-JOINTED ANTENNÆ  
(HYMENOPTERA; SCELIONIDÆ)

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While working over a collection of Proctotrypoid parasites during the winter of 1918-19, I found many specimens of *Telenomus* with the females having only ten antennal joints. These were separated into three species.

The following two species appear to be new to science and their descriptions are herewith presented. In the form of the abdomen they resemble *Phanurus* but the head is transverse and not quadrate or subquadrate as typical of that genus. They are, therefore, placed in *Telenomus*.

***Telenomus hemerocampæ* sp. nov.**

*Female.* Length 1.25 mm. Black, shining; the legs, except the coxæ, dusky yellow, upper sides of femora slightly darker, especially the posterior pair; wings hyaline, ciliated; head about three times as wide as thick as seen from above. Ocelli in a curved line, the lateral ones nearly touching the margin of the eyes, the median

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one set in a shallow fovea. Head margined behind. Vertex shagreened; front below shining, smooth except for a single row of minute punctures along the inner margin of the eyes and a shagreened area on the sides below. The row of punctures extends along the vertex behind the median ocelli and are somewhat larger than those on the sides. Mandibles dark reddish brown. Antennæ ten-jointed with a five-jointed club, scape and pedicel dusky yellow, funicular joints pale brown, the club darker. Scape reaching to the vertex, pedicel twice as long as thick at the apex; first funicular joint twice as long as thick, slightly thicker than the pedicel; second shorter, two-thirds as long; third one-half as long as the first and rounded; first four joints of the club quadrate, about equal; last slightly longer and conically pointed. Prothorax about as long as wide, convex in front, thinly covered with whitish pubescence, shagreened. Scutellum shining with fine, sparse punctures which show faintly. Postscutellum finely rugose. Abdomen sessile, longer than the head and thorax, pointed at the tip. First segment wider at the sides than medially, longitudinally striated at the base; second segment fully twice as long as wide, shining and striated at the base near suture, these striæ not being as long as those at the base of the first segment. Behind these striæ are faint aciculations, showing somewhat stronger at the sides. Following segments much shorter. Wings hyaline, ciliated; venation pale yellow.

*Male.* Differs from the female as follows: Legs and antennæ paler. Antennæ twelve-jointed; scape and pedicel yellowish; the flagellar joints fuscous becoming darker towards the tip. Pedicel and first three funicular joints longer than thick, about equal in length; fourth to ninth moniliform; the last joint twice as long as the penultimate, pointed.

Type locality. New Hampshire. Type: Gip. Moth Lab. No. 4176E. Deposited in U. S. Nat. Mus. Type Cat. No. 23066, U. S. Nat. Mus. Host: *Hemerocampa leucostigma* Abb. & Sm.

Described from four specimens reared from the eggs of *H. leucostigma* collected April 14, 1910.

***Telenomus euproctidis* sp. nov.**

*Female.* Length 0.75 mm. Black, shining; the legs brownish; wings hyaline with long cilia. Head about three times as wide as

thick as seen from above. Lateral ocelli nearly touching the eyes, the median one set in a shallow fovea. Vertex shagreened, with a few punctures; front below smooth, shining, with a row of punctures along the sides near the eyes, shagreened on the sides below. Antennæ dark brown or black, ten-jointed, with a four-jointed club. Scape nearly reaching to the vertex; pedicel more than twice as long as thick; first funicular joint two-thirds as long as the pedicel, second and third one-half as long as the first, not as thick, about equal, fourth considerably wider than long; first, second, and third club joints nearly quadrate, about equal, the last longer and conically pointed. Thorax about as long as wide, convex in front, thinly pubescent with whitish hairs, faintly shagreened. Scutellum smooth, shining, finely pitted around the outer edge; postscutellum finely rugose. Abdomen smooth, shining, longer than the thorax; first segment considerably wider at tip than at base, rather deeply, longitudinally striated at base, striae a little longer than one-half the length of the segment. Second segment more than twice as long as wide, striated at base, the striae not as deep as those on first segment but slightly longer; following segments short and coming to a point. Wings hyaline with rather long cilia; venation pale yellowish brown.

*Male.* Differs from the female as follows: antennæ and legs, except coxæ, considerably paler; abdomen not pointed at apex. First three funicular joints of antennæ about two-thirds the length of the pedicel; fourth to ninth shorter, moniliform; the last twice as long as wide and pointed.

Type locality: Japan. Type: Gip. Moth Lab. No. 3348A. Deposited in U. S. Nat. Mus. Type: Cat. No. 23067, U. S. Nat. Mus. Host: *Euproctis conspersa* Butl.

Described from several specimens reared from the eggs of *E. conspersa* from Japan, August 25, 1910.

#### ***Telenomus dalmani* (Ratz.).**

Ichneum. der Forstinsect., vol. 1, p. 185 (1844), (Teleas).

Mayr, Verh. zool.—bot. Gesellsch. Wien, vol. 29, p. 708 (1879).

*Telenomus fiskei* Brues, Psyche, vol. 17, p. 106 (1910).

There are a few specimens of this species from Dresden, Germany, in the collection and many others from New England. The specimens from New England were first determined as *Telenomus fiskei*

Brues<sup>3</sup> but later were found to agree with Mayr's description of *T. dalmani*. The type of *T. fiskei* agrees with the description and when compared with specimens of *T. dalmani* was found to be the same. Prof. C. T. Brues, who has gone over the description and compared the specimens, is also of the opinion that *T. fiskei* and *T. dalmani* are the same species.

This species has been taken in Maine, New Hampshire, Massachusetts, New York, Ottawa, Canada, England, Holland and Germany. It has been reared from the eggs of *Notolophus antiqua* and *Hemerocampa leucostigma* in U. S. Crawford records this species as having been reared from the eggs of *Orgyia antiqua* in England, Holland and Ottawa, Canada.

### **Telenomus abnormis** Crawford.

Proc. U. S. Nat. Mus., vol. 41, p. 270 (1911).

I have not seen this species. It is described as having the second segment about as long as wide. It differs in this character from any other species under consideration in this paper.

The females in this group may be separated with the following table:

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|----------------------------------------------------|-----------------------------|
| 1. Antennal club five-jointed . . . . .            | 3                           |
| Antennal club four-jointed . . . . .               | 2                           |
| 2. Second segment of abdomen about as long as wide |                             |
| <i>abnormis</i> , Craw.                            |                             |
| Second segment of abdomen much longer than wide    |                             |
| <i>euproctidis</i> sp. nov.                        |                             |
| 3. Abdomen truncate at apex . . . . .              | <i>dalmani</i> (Ratz.)      |
| Abdomen pointed at apex . . . . .                  | <i>hemerocampa</i> sp. nov. |

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## THE NOCTUID GENUS *COPABLEPHARON* (HARVEY) WITH NOTES ON ITS TAXONOMIC RELATIONSHIPS.

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The Genus *Copablepharon* was erected by Harvey ('78) for a single Californian species, *absidum* Harv. which he had previously ('74) placed in the genus *Ablepharon*-*Arsilonche*. In his descrip-